## UNIVERSITY OF LOUISIANA AT LAFAYETTE

CHEMISTRY 234- Organic II Lab

**Instructor:** Dr. A. Gallo

Office MY 137; Labs MY 235 and 246

gallo@louisiana.edu

**Text:** Experiments in Organic Chemistry by R.K. Hill & J. Barbaro 3<sup>rd</sup> edition, Contemporary Publishing Co.

**Attendance:** You will need to attend all the laboratories. Generally, there are no makeup labs, especially in the summer semester. If you miss a lab, report to your instructor upon returning with a valid excuse.

**General:** By the second lab meeting, you must have the following items:

- 1. A lab text
- 2. A permanently bound lab record book
- 3. Safety glasses
- 4. Paper towels and detergent

Laboratory sessions start on time and we try to finish on time, but there are cases when an experiment requires us to go past the normal operating time (by a few minutes). All equipment should be off the bench top and your locker should be locked when you leave the lab. Keep your area clean. Your need to be able to make efficient use of your laboratory time, so it is important that you understand the experiment before the lab begins.

Safety is our number 1 concern in the lab. You must obey all safety rules, take the safety quiz and sign the safety commitment sheet before being formally admitted to the lab. These rules and regulations will be discussed on the first lab day. No horse play, eating or drinking is allowed in the lab.

**Grading System:** There will be several quizzes throughout the semester which normally are given at the start of the lab. Your instructor will inform you of the quiz date and the topics that will be covered on the quiz. Your overall grade will be determined as follows:

Quizzes-----35% Experiment----55% Notebook-----10%

The standard grading scale of the university will be in effect:

A----90-100%

B----80-89%

C----70-79%

D----60-69%

F----Below 59%

A preliminary grade will be assigned using the above grading scale. This instructor reserves the right to lower the grade by one level if the student has continually been tardy, destructive and mean-spirited to his peers. The student will have been for warned that this is going to happen to him or her.

**NOTEBOOK:** The following information should be a part of your notebook:

Page 1: Title Page with your name, address, course title, number, section number, room number, day and time of class, instructor's name. The date of the first and last entry should be recorded.

Pages 2 & 3: Table of contents

Experiment # Date Title of Experiment Pages

## Record for an experiment:

TITLE------all experiments
PURPOSE-----all experiments
PROCEDURE-----all experiments
MAIN REACTION-----synthetic experiments
MECHANISM-----synthetic experiments
OBSERVATIONS/DATA-----all experiments
PURIFICATION METHODS----synthetic experiments
RESULTS & CONCLUSIONS----all experiments

Chemistry 234- Organic II Laboratory

Week 1: Safety and Check in

Week 2: Williamson Ether Synthesis

Week 3: Aromatic Chemistry- Friedel- Crafts with 1,4 Dimethoxybenzene

Week 4: Diels Alder Reaction

Week 5; Carbonyl Group Identification- Aldehydes and Ketones

Week 6: Organometallic Chemistry- Grignard Reagents

Week 7: Organometallic Chemistry- Grignard Reagents II

Week8: Natural Products Chemistry

Week 9: Diazonium Ion Chemistry

Week 10: Qualitative Organic Analysis I- 3 general unknowns

Week 11; Qualitative Analysis II and Spectroscopic Analysis

Week 12: Qualitative Analysis III

Week 13: Final Exam (2 hours)

Week 14; Checkout